

REMARKS

This responds to the Office Action mailed on September 17, 2004.

Claims 21-22, 25, 28, 30, and 34 are amended; as a result, claims 21-40 are now pending in this application.

Claim Objections

Claims 22 and 30 were objected to due to informalities. Claims 22 and 30 were corrected in the manner suggested by the Examiner with the amendments presented above. Accordingly, these objections are no longer appropriate and should be withdrawn.

Double Patenting Rejection

Claims 21-40 were rejected under the judicially created doctrine of obviousness-type double patenting as being not patentable over claims 1, 4, 5, 11, 16, 17 and 20 of U.S. Patent No. 6,622,212. A terminal disclaimer in compliance with 37 C.F.R. 1.321(b)(iv) is enclosed herewith to obviate this rejection. Thus, the rejection should be withdrawn.

§112 Rejection of the Claims

Claim 25 was rejected under 35 USC § 112, first paragraph, as failing to comply with the written description requirement. Applicant has amended claim 25, such that the ambiguity suggested by the Examiner is resolved. Thus, this rejection should be withdrawn.

§102 Rejection of the Claims

Claims 21-24, 26-32 and 34-40 were rejected under 35 USC § 102(b) as being anticipated by Macon, Jr. et al. (U.S. 5,600,817). It is of course fundamental that in order to sustain an obviousness rejection that each and every element or step in the rejected claim must be taught or suggested in the cited reference.

In Macon, a read-ahead technique is described which is implemented within a file system. See, Macon, FIGS. 1 and 3 and their related descriptions. A determination as to whether demand data exists or does not exist in cache is made based on a search of the cache. The comparator issues a hit or a miss, if data is not available as prefetched within the cache. Macon,

col. 5, lines There is no teaching or even a suggestion of a teaching in Macon where the file system controller (CONT 18) is capable of adjusting or biasing itself in favor of biasing or against biasing with respect to the prefetching.

That is, in Macon prefetching always occurs and prefetched data is sometimes also available in cache. If a miss occurs indicating that something is not in cache when requested, then the CONT 18 acquires it from the I/O device and also performs another prefetch. Macon, col. 39-45. Thus, the CONT 18 does not adjust or bias itself as the Examiner appears to assert. The CONT 18 simply acquires data from the I/O device and stores it in cache, if a read is received the CONT 18 first checks the cache to see if the data is there, if it is there, then it is returned. If that data is not in cache (failure or miss) then the data is acquired from the I/O device and the CONT 18 *continues to prefetch data* from the I/O device in an unabated and non adjusted manner. *Emphasis added.*

One of ordinary skill in the art appreciates that this is not efficient, because the file system's controller (CONT 18) will continually and regularly prefetch with the Macon technique, even when it is not prefetching correctly. This could lead to far too many I/O requests than is necessary and could substantially degrade performance, because if the Macon technique is consistently wrong than at least two I/O operations are performed for every single I/O operation that is actually needed or requested.

Macon was not concerned with this scenario, because Macon was designed to retrieve files, and file data types have identifiers and metadata that define where and how to obtain a file's data from an I/O device. Thus, the Macon technique, which is implemented in a file system, could reasonably be assured that the situation described above would not occur because it was prefetching for only files and files associated with its file system.

However, Applicant's invention is not tied to the format of any particular data type, such as a file having file identifiers and metadata. Thus, Applicant's prefetching dynamically adjusts itself and biases itself in favor of biasing or against biasing based on its success rates. Thus, if it is determined that success is not being achieved; the prefetching will automatically shut down so that performance is not further degraded. This permits Applicant's invention to be capable of handling different data types, not specifically associated with files and also permits Applicant's

invention to be integrated into any software implementation, such that Applicant's invention is not dependent upon a particular file system or operating system.

Therefore, Applicant asserts that Macon does not teach each and every aspect of Applicant's independent claims, since the file system controller in Macon does not adjust or bias itself based on success rates. In fact, the Macon file system controller always and consistently performs prefetching into a cache regardless of its success or failure rates.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Joseph Mehrle at 513-942-0224, or the undersigned attorney to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date Jan. 18, 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 18 day of January 2005.

Chris Hammond

Name

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Signature